Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A device for the processing of plastic waste, comprising a shredding device ~~(9)~~ arranged in a casing ~~(1)~~ and rotatable around an axis of rotation ~~(2)~~, which shredding device carries a plurality of knives ~~(3)~~ at its periphery, and an extruder comprising an extruder screw ~~(4)~~, with the casing ~~(1) comprising~~ exhibiting a feed opening ~~(5)~~ for ~~the supply of~~ radially supplying plastic waste to the shredding device, wherein in the casing in a vicinity of the shredding device ~~(9) and~~ a discharge opening ~~(6)~~ for the delivery of shredded plastic waste to the extruder~~, characterized in that~~ is formed, by means of which opening the shredding device communicates with the extruder screw, and wherein the shredding device ~~(9)~~ and its knives ~~(3)~~, respectively, can be moved past the extruder screw ~~(4)~~ at such a small distance (h) that effective shear gaps are formed between the knives ~~(3)~~ of the shredding device ~~(9)~~ and a helix ~~(4a)~~ of the extruder screw ~~(4)~~.

Claim 2 (currently amended): A device for the processing of plastic waste according to claim 1, ~~characterized in that~~ wherein the distance (h) between the knives ~~(3)~~ of the shredding device and the extruder-screw helix ~~(4a)~~ amounts to less than 10 cm~~, preferably less than 5 cm, and most preferably less than 3 cm~~.

Claim 3 (currently amended): A device for the processing of plastic waste according to claim 1, ~~characterized in that~~ wherein the axis of rotation ~~(2)~~ of the rotatable shredding device ~~(9)~~ is disposed relative to the rotational axis of the extruder screw ~~(4)~~ at an angle (β) of 60-120°~~, preferably at about a right angle~~.

Claim 4 (currently amended): A device for the processing of plastic waste according to claim 1, ~~characterized in that~~ wherein the shredding device ~~(9)~~ has a horizontal axis of rotation ~~(2)~~ and is arranged above the extruder.

Claim 5 (currently amended): A device for the processing of plastic waste according to claim 1, ~~characterized in that~~ wherein the knives ~~(3)~~ disposed around the periphery of the shredding device are arranged in a helical manner so that they support the conveyance of synthetic material toward the discharge opening ~~(6)~~.

Claim 6 (currently amended): A device for the processing of plastic waste according to claim 1, ~~characterized in that~~ wherein devices for supporting the conveyance of material toward the discharge opening ~~(6), in particular helical grooves or webs (7) and/or air nozzles (8),~~ are provided at the inner wall of the casing ~~(1)~~, which wall surrounds the shredding device.

Claim 7 (currently amended): A device for the processing of plastic waste according to claim 5, ~~characterized in that~~ wherein the discharge opening ~~(6)~~ is arranged roughly at the mid-point of the length of the shredding device ~~(9)~~.

Claim 8 (currently amended): A device for the processing of plastic waste according to claim 1, ~~characterized in that~~ wherein the rotational speed of the extruder screw ~~(4)~~ ~~can be~~ is adjusted depending on the load of the shredding device ~~(9), wherein the load can preferably be determined via pressure elements or the electric current consumption of a drive motor of the shredding device~~.

Claim 9 (canceled)

Claim 10 (currently amended): A device for the processing of plastic waste according to claim 1, ~~characterized in that~~ wherein the shredding device ~~(9)~~ cooperates with a driven slide ~~(10)~~ in order to press the synthetic material against the knives ~~(3)~~, depending on the load on the axis of rotation ~~(2)~~ of the shredding device.

Claims 11 and 12 (canceled)

Claim 13 (new): A device for the processing of plastic waste according to claim 2, wherein the distance (h) between the knives of the shredding device and the extruder-screw helix amounts to less than 5 cm.

Claim 14 (new): A device for the processing of plastic waste according to claim 2, wherein the distance (h) between the knives of the shredding device and the extruder-screw helix amounts to less than 3 cm.

Claim 15 (new): A device for the processing of plastic waste according to claim 3, wherein the axis of rotation of the rotatable shredding device is disposed relative to the rotational axis of the extruder screw at an angle (β) of about 90°.

Claim 16 (new): A device for the processing of plastic waste according to claim 6, wherein the devices for supporting the conveyance of material toward the discharge opening comprise one of helical grooves and webs.

Claim 17 (new): A device for the processing of plastic waste according to claim 6, wherein the devices for supporting the conveyance of material toward the discharge opening comprise air nozzles.

Claim 18 (new): A device for the processing of plastic waste according to claim 8, wherein the load is determined via pressure elements or the electric current consumption of a drive motor of the shredding device.

Claim 19 (new): A device according to claim 1 comprising one shredding device arranged in the casing.